

REMARKS/ARGUMENTS

Claims 11-62 are pending in this application. By this Amendment, Applicant amends the title of the invention, specification, and Claims 50, 55, and 56.

Applicant appreciates the Examiner's indication that Claims 1-49, 61, and 62 are allowed, and that Claims 52, 55, and 56 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. Applicant notes that Claims 1-10 were canceled in the Preliminary Amendment filed on September 28, 2005. Thus, it appears that the Examiner intended to indicate that Claims 11-49, 61, and 62, instead of Claims 1-49, 61, and 62, are allowed.

The specification was objected to for allegedly containing a minor informality. Applicant has amended the specification as suggested by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claim 56 was objected to for containing a minor informality. Applicant has amended Claim 56 to correct the minor informality noted by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

Claims 50, 51, 53, 54, and 57-60 were rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi et al. (U.S. 5,121,716). Claims 50, 51, 53, 54, and 57-60 were rejected under 35 U.S.C. § 102(b) as being anticipated by Maeda et al. (JP 07-097938). Claims 50, 51, 53, 54, and 57-60 were rejected under 35 U.S.C. § 102(e) as being anticipated by Onoue (U.S. 6,705,264). Applicant respectfully traverses the rejections of Claims 50, 51, 53, 54, and 57-60.

Claim 50 has been amended to recite:

A valve gear comprising:
a camshaft having a first valve gear cam and a second valve gear cam;
first and second rocker shafts arranged such that the camshaft is disposed between the first and second rocker shafts;
a first rocker arm swingably supported on the first rocker shaft and having a roller bearing at one end thereof, the roller bearing of the first rocker arm being arranged to contact with the first valve gear cam; and

a second rocker arm swingably supported on the second rocker shaft and having a roller bearing at one end thereof, the roller bearing of the second rocker arm being arranged to contact with the second valve gear cam; wherein

the first and second valve gear cams of the camshaft, respectively, include a base circle and a cam nose projecting from the base circle, and the first rocker arm and the first valve gear cam are arranged such that the first rocker shaft is not moved in a direction in which the roller bearing of the first rocker arm is moved when the cam nose of the first valve gear cam contacts and pushes up the roller bearing of the first rocker shaft;

θ1 indicates an intersecting angle between a line which connects the center of the first rocker shaft and the center of rotation of the roller bearing of the first rocker arm, and a line which connects a center of rotation of the camshaft and the center of rotation of the roller bearing of the first rocker arm; and

θ1 is larger than approximately 90 degrees. (emphasis added)

With the unique combination and arrangement of features recited in Applicant's Claim 50, including the features of "θ1 indicates an intersecting angle between a line which connects the center of the first rocker shaft and the center of rotation of the roller bearing of the first rocker arm, and a line which connects a center of rotation of the camshaft and the center of rotation of the roller bearing of the first rocker arm" and "θ1 is larger than approximately 90 degrees," Applicant has been able to provide a valve gear that is capable of preventing a buckling load from being applied to a first rocker arm and decreases a load being borne by the first rocker arm so that the first rocker arm does not have to be reinforced and made larger. (See, for example, the second full paragraph on page 4 of the Substitute Specification).

The Examiner alleged that each of Takahashi et al., Maeda et al., and Onoue teaches all of the features recited in Applicant's Claim 50.

Applicant's Claim 50 has been amended to recite the features of "θ1 indicates an intersecting angle between a line which connects the center of the first rocker shaft and the center of rotation of the roller bearing of the first rocker arm, and a line which connects a center of rotation of the camshaft and the center of rotation of the roller

bearing of the first rocker arm" and " $\theta 1$ is larger than approximately 90 degrees." Support for these features is found, for example, in the paragraph bridging pages 7 and 8 and the first full paragraph on page 8 of the Substitute Specification.

Takahashi et al., Maeda et al., and Onoue fail to teach or suggest any specific intersecting angle between a line which connects the center of a rocker shaft and a center of rotation of a roller bearing of the rocker arm, and a line which connects a center of rotation of a camshaft and the center of rotation of the roller bearing of the rocker arm, and certainly fail to teach or suggest an intersection angle that is larger than approximately 90 degrees as recited in Applicant's Claim 50. Furthermore, each of Fig. 1 of Takahashi et al., Fig. 2 of Maeda et al., and Fig. 7 of Onoue teaches rocker arms that are arranged such that $\theta 1$ is **substantially smaller than approximately 90 degrees**, where $\theta 1$ indicates an intersecting angle between a line which connects the center of the first rocker shaft and the center of rotation of the roller bearing of the first rocker arm, and a line which connects a center of rotation of the camshaft and the center of rotation of the roller bearing of the first rocker arm. In fact, every rocker arm shown in Takahashi et al., Maeda et al., and Onoue are arranged such that $\theta 1$ is **substantially smaller than approximately 90 degrees**.

Thus, Takahashi et al., Maeda et al., and Onoue clearly fail to teach or suggest the features of " $\theta 1$ indicates an intersecting angle between a line which connects the center of the first rocker shaft and the center of rotation of the roller bearing of the first rocker arm, and a line which connects a center of rotation of the camshaft and the center of rotation of the roller bearing of the first rocker arm" and " $\theta 1$ is larger than approximately 90 degrees" as recited in Applicant's Claim 50.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 50, 51, 53, 54, and 57-60 under 35 U.S.C. § 102(b) as being anticipated by Takahashi et al., the rejection of Claims 50, 51, 53, 54, and 57-60 under 35 U.S.C. § 102(b) as being anticipated by Maeda et al., and the rejection of Claims 50,

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51, 53, 54, and 57-60 under 35 U.S.C. § 102(e) as being anticipated by Onoue.

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claim 50 is allowable. Claims 51-60 depend upon Claim 50, and are therefore allowable for at least the reasons that Claim 50 is allowable. Claims 11-49, 61, and 62 are allowed as indicated by the Examiner.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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